Mission RE-OP Impossible

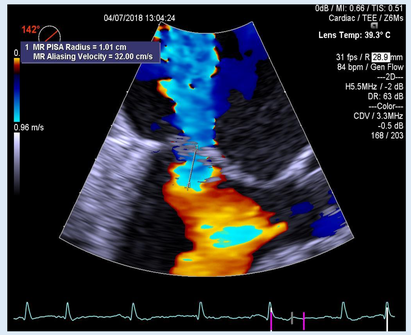
João Pedro Monteiro, *Sara Simões Costa, Nelson Santos, Rodolfo Pereira, Daniel Martins, Luís Vouga*
CHVNG/E, Portugal

PRE-OPERATIVE

- 56 year-old woman
- Emergency department with worsening congestive heart failure (orthopnea and inferior members edema)
- NYHA III
- History of ALCAPA (Anomalous Left Coronary Artery from Pulmonary Artery)
- *1989* - CABG x 1(SVG -->LAD) + Ligation of left coronary at its origin

CAT:
- **SVG -->LAD patent**, very dilated, with perfusion to LAD, Cx and Pulmonary artery
- LAD with no lesion. RC with no lesions

TT Eco/TE Eco:
- **Severe mitral regurgitation** (A1 and P1 prolapse + possible fenestration of posterior leaflet)
- Mild tricuspid regurgitation
- Moderate tricuspid regurgitation
- Pulmonary Hipertension (PSAP 50mmHg +pVC)
- Pulmonary artery dilation with flow compatible with **fistula**!!!!



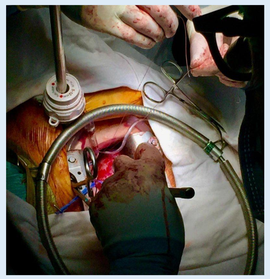
CT Scan:
- **PATENT VENOUS GRAFT EXTREMELY CLOSE TO STERNUM!!!!**

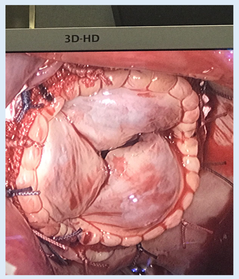




SURGERY

MIMVR
(Minimally Invasive Mitral Valve Replacement)
+
VENTRICULAR FIBRILLATION
+
WITHOUT Aortic Cross Clamp





1) Double lumen endotracheal tube – one lung ventilation
2) Right Mini-thoracotomy (4th anterolateral inter-costal space)
3) Peripheral cannulation (Right Femoral Artery and Right Femoral Vein)
4) Cardiopulmonary Bypass with vacum-assisted venous drainage
5) Cooling to 22ºC to induce Ventricular Fibrillation
6)) Mediastinal adhesions, unable to dissect
6) Left atriotomy (between pulmonar veins and frenic nerve)
7) Mitral valve replacement (Biological prothesis - St Jude #33) – *standard fashion*
8) Careful De-Airing/Filling of Left ventricle and Left Atrium
9) Left atrium closure
10) Rewarming, Cardioversion, Cardiopulmonary Bypass terminated
11) Right pleural chest tube , Closure

POST-OPERATIVE

- Extubated PO day 1
- Discharge PO day 7
- 6 Month Follow-up –> NYHA II (with less diuretics)

TT Eco:
- **Prothesis OK (Gradient 22/8mmHg)**
- Pulmonary artery dilation with flow compatible with coronary fistula
- Preserved left and right ventricular function
- Mild tricuspid regurgitation

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